ABSTRACT

A super-lightweight ceramic foam with a cellular structure effectively reinforced by ceramic short fibers, which has a density of 0.2 g/cm^3 or less and a sufficient strength. The ceramic foam is prepared by evenly dispersing ceramic short fibers throughout a nonaqueous solvent through the use of the reactivity of metal alkoxide with the surface of the ceramic short fibers, adding into the nonaqueous solvent an aqueous slurry containing ceramic powder dispersed therein, allowing the evenly dispersed ceramic fibers to move into an aqueous phase separately from a nonaqueous solvent phase so as to obtain an aqueous slurry containing the ceramic fibers evenly dispersed therein, and foaming and firing the aqueous slurry.